Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): In a data communication network, a method for operating a client node, said method comprising:

formatting an IP packet to include a header comprising a globally significant IP address identifying a realm and a locally significant IP address identifying a destination of said IP packet within said realm; and

transmitting said IP packet.

Claim 2 (original): The method of claim 1 further comprising:

resolving said globally significant IP address from a first component of a globally significant name; and

resolving said locally significant IP address from a second component of a locally significant name.

Claim 3 (original): The method of claim 2 wherein resolving said globally significant IP address comprises contacting a global DNS server.

Claim 4 (original): The method of claim 2 wherein resolving said globally significant IP address comprises contacting a local DNS server.

Claim 5 (original): The method of claim 2 wherein resolving said globally significant IP address comprises contacting an SIP server.

Claim 6 (original): The method of claim 1 wherein said globally significant IP address belongs to a range specified for realms.

Claim 7 (original): In a data communication network, a method for operating a gateway node to handle a received packet, said method comprising:

extracting a globally significant destination address from a destination address field of said packet; and

if said globally significant destination address identifies a realm directly attached to said gateway node, extracting a locally significant destination address from said packet, placing said locally significant destination address in said destination address field, and forwarding said packet to a local destination within said realm.

Claim 8 (original): The method of claim 7 further comprising:

if said globally significant destination address does not identify a realm directly attached to said gateway node, forwarding said packet to a next hop based on said globally significant destination address.

Claim 9 (original): The method of claim 7 further comprising:

advertising a realm reachable through said gateway node.

Claim 10 (original): The method of claim 9 wherein advertising comprises:

sending a border gateway protocol message identifying said realm reachable through said gateway node.

Claim 11 (currently amended): In a data communication network, a computer program product for operating an IP stack at a client node, said computer program product comprising:

code that formats an IP packet to include a header comprising a globally significant IP address identifying a realm and a locally significant IP address identifying a destination of said IP packet within said realm;

code that transmits said IP packet; and

a computer-readable storage medium that stores the codes.

Claim 12 (original): The computer program product of claim 11 further comprising:

code that resolves said globally significant IP address from a first component of a globally significant name; and

code that resolves said locally significant IP address from a second component of a locally significant name.

Claim 13 (original): The computer program product of claim 12 wherein said code that resolves said globally significant IP address comprises code that contacts a global DNS server.

Claim 14 (original): The computer program product of claim 12 wherein said code that resolves said globally significant IP address comprises code that contacts a local DNS server.

Claim 15 (original): The computer program product of claim 12 wherein said code that resolves said globally significant IP address comprises code that contacts an SIP server.

Claim 16 (original): The computer program product of claim 11 wherein said globally significant IP address belongs to a range specified for realms.

Claim 17 (original): In a data communication network, a computer program product for operating a gateway node to handle a received packet, said computer program product comprising:

code that extracts a globally significant destination address from a destination address field of said packet;

code that, if said globally significant destination address identifies a realm directly attached to said gateway node, extracts a locally significant destination address from said packet, placing said locally significant destination address in said destination address field, and forwards said packet to a local destination within said realm; and

a computer-readable storage medium that stores the codes.

Claim 18 (original): The computer program product of claim 17 further comprising:

code that, if said globally significant destination address does not identify a realm directly attached to said gateway node, forwards said packet to a next hop based on said globally significant destination address.

Claim 19 (original): The computer program product of claim 17 further comprising:

code that advertises a realm reachable through said gateway node.

Claim 20 (original): The computer program product of claim 19 wherein said code that advertises comprises:

code that sends a border gateway protocol message identifying said realm reachable through said gateway node.

Claim 21 (currently amended): In a data communication network, apparatus for operating an IP stack at a client node, said apparatus comprising:

a processor; and

a memory storing instructions executed by said processor, said instructions comprising:

code that formats an IP packet to include a header comprising a globally significant IP address identifying a realm and a locally significant IP address identifying a destination of said IP packet within said realm; and

code that transmits said IP packet.

Claim 22 (original): The apparatus of claim 21 wherein said instructions further comprise:

code that resolves said globally significant IP address from a first component of a globally significant name; and

code that resolves said locally significant IP address from a second component of a locally significant name.

Claim 23 (original): The apparatus of claim 22 wherein said code that resolves said globally significant IP address comprises code that contacts a global DNS server.

Claim 24 (original): The apparatus of claim 22 wherein said code that resolves said globally significant IP address comprises code that contacts a local DNS server.

Claim 25 (original): The apparatus of claim 22 wherein said code that resolves said globally significant IP address comprises code that contacts an SIP server.

Claim 26 (original): The apparatus of claim 21 wherein said globally significant IP address belongs to a range specified for realms.

Claim 27 (original): In a data communication network, apparatus for operating a gateway node to handle a received packet, said apparatus comprising:

a processor; and

a memory that stores instructions executed by said processor, said instructions comprising:

code that extracts a globally significant destination address from a destination address field of said packet; and

code that, if said globally significant destination address identifies a realm directly attached to said gateway node, extracts a locally significant destination address from said packet, placing said locally significant destination

address in said destination address field, and forwards said packet to a local destination within said realm.

Claim 28 (original): The apparatus of claim 27 further wherein said instructions further comprise:

code that, if said globally significant destination address does not identify a realm directly attached to said gateway node, forwards said packet to a next hop based on said globally significant destination address.

Claim 29 (original): The apparatus of claim 27 wherein said instructions further comprise:

code that advertises a realm reachable through said gateway node.

Claim 30 (original): The apparatus of claim 29 wherein said code that advertises comprises:

code that sends a border gateway protocol message identifying said realm reachable through said gateway node.

Claim 31 (currently amended): In a data communication network, apparatus for operating a client node, said apparatus comprising:

means for formatting an IP packet to include a header comprising a globally significant IP address identifying a realm and a locally significant IP address identifying a destination of said IP packet within said realm; and

means for transmitting said IP packet.

Claim 32 (original): In a data communication network, apparatus for operating a gateway node to handle a received packet, said method comprising:

means for extracting a globally significant destination address from a destination address field of said packet; and

means for, if said globally significant destination address identifies a realm directly attached to said gateway node, extracting a locally significant destination address from said packet, placing said locally significant destination address in said destination address field, and forwarding said packet to a local destination within said realm.

Claim 33 (new): The method of claim 1 wherein the client node comprises a globally unique IP address.

Claim 34 (new): The method of claim 33 wherein said globally unique IP address comprises a concatenation of a globally significant IP address of the client node's realm and the client's node locally unique address.

Claim 35 (new): The method of claim 1 wherein said header comprises an encapsulation IP header and an inner IP header.

Claim 36 (new): The method of claim 35 wherein said encapsulation IP header comprises said globally significant IP address identifying said realm and a globally significant IP address identifying a realm of the client node.

Claim 37 (new): The method of claim 35 wherein said inner IP header comprises said locally significant IP address identifying the destination of said IP packet and a locally significant IP address identifying the client node.

Claim 38 (new): The method of claim 1 wherein transmitting said IP packet comprises utilizing only said globally significant IP address in selecting a next hop node.